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EXAMINER

STERLING, AMY JO

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/071,376
Filing Date: February 08, 2002
Appellant(s): OU ET AL.

David M. Goodrich
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/29/06 appealing from the Office action
mailed 7/14/05.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,554,429	IWATA ET AL.	9-1996
6,092,343	WEST ET AL.	7-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

Claims 1-3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5554429 to Iwata et al.

The patent to Iwata et al. discloses a laminated wood piece having a solid hardwood component (3, See Col. 11 line 27 for material selection) having an upper surface and lower surface that are substantially parallel and a wood composite of oriented strand board (See Col. 2, line 66), having layers (1, 2), the layers being substantially parallel to the lower surface of the hard wood and the layers which have a thickness ration of 1:1 to 1:10. The thicknesses are 0.2mm to 1mm (Col. 11, line 26) for the hard wood (3) and 5mm to 13mm (Col. 7, line 15) for the core layer (1) and 0.1mm to 0.8mm (Col. 7 line 66) for the surface layers (2), thereby producing a thickness ration of 1 to 10. Iwata et al. also teaches a wood composite boards with a density within the range of 35 lbs/ft³ and 48 lbs/ft³ (See Col. 9, line 18: 0.75 g/cm³ converts to 46.8 lbs/ft³). Iwata et al. also teaches that 90% of the strands are oriented substantially parallel to the length of the laminated piece (See Col. 9 lines 64-67 and Col. 10, lines 1-5).

Iwata et al. shows the basic inventive concept with the exception that it does not show the specifics of the dimensions of the thickness of the hardwood being between 0.3cm and 1.3 cm or that the width and length of the piece is 3 to 6 cm or 120 to 305 cm or that the screw holding strength is about 400 lbs. To 1200 lbs or that the

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device has a split resistance of greater than 1000 lbs or wherein the width of the piece is about 3 to 6 cm and the length of the piece is about 120 to 305cm.

Iwata et al. discloses the claimed invention except for the specific dimensions and strength capabilities. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have these dimensions (See Col. 11, lines 54) or these strength ranges (See Col. 3 lines 29-47), since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges or dimensions involves only routine skill in the art. See In re Aller, 105 USPQ 233.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5554429 to Iwata et al. as applied to claim 1 above and further in view of United States Patent Publication US 2003/0008110 A1 to Hsu.

Iwata et al. show the basic inventive concept as cited above including that the binder is between the range of 3% to 6% weight (See Col. 6, line 36). Iwata et al. also teaches that many other additives may be added to the wood composite board (See Col. 1 line 39), but does not specifically recite that it contains about 1% to about 2.5% of a wax additive.

Hsu teaches oriented strand board with a wax additive with weight from about 1% to about 2.5% of a wax additive. (See Table 1, on page 5). This additive is a design choices, used for the moisture resistant properties. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made

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from the teachings of the Hsu to have used an oriented strand board with the above additive in order to have the moisture resistant properties.

Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6092343 to West et al. and further in view of United States Patent No. 5554429 to Iwata et al.

West et al. shows the basic inventive concept including a door with opposed doorskins (24), a pair of stile members (18), which are oriented vertically and parallel to each other, a pair of rails (22) and a core (22), wherein the stile is in contact with the core. West et al. does not teach the specific of the core, which is taught by Iwata et al. West et al. also teaches the method of providing a core(22) providing a door stile, securing the door stile to the core, the hardwood component being on the outer side of the wood composite. West et al. does not show the stile having the hardwood and parallel layers of wood composite, the wood composite layers contacting the core. West et al. also does not teach the method of cutting the wood composite and the hardwood into the desired dimensions and attaching the sections together, both having the same width.

Iwata et al. teaches a laminated wood piece having a solid hardwood component (3, See Col. 11 line 27 for material selection) having an upper surface and lower surface that are substantially parallel and a wood composite of oriented strand board (See Col. 2, line 66), having layers (1, 2), the layers being substantially parallel to the lower surface of the hard wood and the layers which have a thickness ration of 1:1 to 1:10.

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The thicknesses are 0.2mm to 1mm (Col. 11, line 26) for the hard wood (3) and 5mm to 13mm (Col. 7, line 15) for the core layer (1) and 0.1mm to 0.8mm (Col. 7 line 66) for the surface layers (2), thereby producing a thickness ration of 1 to 10. This wood composite board used for its strength and flexure capabilities. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention from the teachings of lwata et al. to have used a core lwata et al. in order to have the desired strength of the door. The method of cutting the wood composite and the hardwood of the same width and attaching them together would also be an obvious way to make the device, and when assembled the method of having the wood composite touch the core would also be obvious, since that configuration would include facing the more aesthetically pleasing hardwood to the eye of the user.

(10) Response to Argument

A. Rejection of Claims 1-3 and 5-8 under 35 USC 103(a)

i. The rejection of claim 1 under 35 USC 103(a) is proper because lwata et al. clearly teaches the thickness of the hardwood.

The applicant has argued that the rejection of claim 1 is improper because lwata et al. does not teach the dimensions of the thickness of the hardwood. (See Appeal Brief, page 6 lines 4-5).

The thicknesses in a ratio of 1 to 10 as recited by claim 1 (See line 7) are clearly shown by the lwata et al. reference. The layers are directly taught to be 0.2mm to 1mm (see, Col. 11, line 26) for the hard wood (3) and 5mm to 13mm (Col. 7, line 15) for the

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core layer (1) and 0.1mm to 0.8mm (Col. 7 line 66) for the surface layers (2), thereby producing a thickness ration of 1 to 10.

ii. The rejection of claim 1 under 35 USC 103(a) is proper because the range of lengths and the range of widths of the laminated wood piece are obvious design choices.

Iwata et al., states that "In recent years, insufficiency of lumber resources and protection of forests have become problems and it has become clear that it will be increasingly difficult to obtain timber from forests." (See Col. 1 lines 13-18). This clearly shows that using a combination of hardwood and wood composite was a well known solution to conserving hardwood and forest resources.

Iwata et al. also teaches that the laminated wood piece could be cut to any dimensions. (See Col. 11, lines 54) The reference states, "...the present invention may be cut to a square shape, rectangular shape or the like, having desired dimensions." This clearly shows that the laminated wood piece having a hardwood and wood composite component could be of any desired dimension and still fall within the teachings of Iwata et al.

Although the Iwata et al. does not recite the exact ranges of dimensions these ranges are obvious design choices for a laminated wood piece because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges or dimensions involves only routine skill in the art. See In re Aller, 105 USPQ 233.

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In the present case, these dimension ranges would only involve routine skill in the art because, the ranges are broad and that of a typical door style and the specification lacks any criticality as to why these particular dimensions of length and width may be important to the alleged invention. It was well known at the time of the invention that a laminated wood piece with the desired use of a door style may be from 3 to 6 cm and about 120 to 305 cm, because these dimensions would fit an average door.

Also, the specification lacks any recitation of criticality which might suggest why these dimension ranges are unique or even necessary.

Therefore, for the reasons cited above, it is evident from current case law, that the range of dimensions as recited would be obvious and therefore the rejection of claim 1 under 35 USC 103(a) is proper.

iii. The rejection of claim 5 under 35 USC 103(a) is proper because the screw holding strength is a desired result or use of the device, the optimization of which is obvious.

The applicant has argued that the Iwata et al. reference does not specifically teach that the laminated wood piece has a screw holding strength range of 400 lbs. to 1200 lbs. (See Appeal Brief, page 6, line 6).

The screw holding strength, which is a test result feature, is also obvious in that the optimizing of such test results, especially to fit within a broad range of 400 to 1200 lbs., is routine in testing the strength of wood in many applications. Clearly absent from

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the specification and claim 5 is the recitation of any specific structure, chemical component or physical characteristic that would provide these particular test results. Therefore these predetermined results would merely be an optimization of routine engineering, easily fit due to the broad range, which case law has specifically stated to be obvious. See In re Aller, 105 USPQ 233.

iv. The rejection of claims 10-16 under 35 USC 103(a) in view of West et al. and Iwata et al. is proper because the combination of the references has clear motivation, every element is obvious by the combination, the combination does not use hindsight reasoning and there is a reasonable expectation of success in the combining of the references.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, the motivation for the combination of West et al. and Iwata et al. come directly from the teachings of both references. West et al. teaches, "Recent engineering changes in wood doors have made use of laminated wood materials with thin surface veneers in an attempt to overcome the disadvantages associated with solid

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wood door members". (See Col. 1, lines 18-22). Iwata et al. strengthens this motivation, stating that "the insufficiency of lumber resources and the protection of forests have become problems" (See Col. 1, lines 13 and 14). Therefore the West et al. reference teaches that the use of a laminate wood piece is common in the making of a door, the specifics of a laminate wood piece being taught by Iwata et al., the combination of which is motivated by the desire to save hard wood resources.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). It is clear from the references above that the knowledge as recited above was available at the time of the claimed invention by the West et al. and Iwata et al. references.

The applicant also states that the combination of references lacks an reasonable expectation of success without pointing out any specifics as to why and there is no reason to believe that the use of the laminated wood as taught by Iwata et al. would not be successful in the door as taught by West et al.

(11) Related Proceeding(s) Appendix

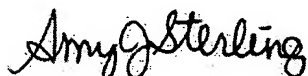
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No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Conclusion

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Amy J. Sterling
Primary Examiner
11/11/06

Conferees:

Meredith Petravick
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